ENVIRONMENTAL CHEMISTS

Date of Report: January 8, 1996 Date Received: December 28, 1995

Project: Metro Self Monitor, PO M51766
Date Samples Extracted: January 4, 1996
Date Extracts Analyzed: January 5, 1996

RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC Samples Processed Using Method 3005

Results Reported as mg/L (ppm)

Sample ID Chro	mium <u>Cop</u>	per <u>Nickel</u>	Zinc
M51766 0.	.69 0.′	71 0.41	0.07
Method Blank <0.	.05 <0.0	05 <0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: January 8, 1996 Date Received: December 28, 1995

Project: Metro Self Monitor, PO M51766

QUALITY ASSURANCE RESULTS FOR CHROMIUM, COPPER, NICKEL, AND ZINC Samples Processed Using Method 3005

Laboratory Code: 65466 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Amaryte.	Ones	nesun	<u> </u>	Difference	Criteria
Chromiun	n mg/L (ppm)	0.69	0.70	1	0-20
Copper	mg/L (ppm)	0.71	0.83	16	0-20
Nickel	mg/L (ppm)	0.41	0.43	5	0-20
Zinc	mg/L (ppm)	0.07	0.11	44 a	0-20

Laboratory Code: 65466 (Matrix Spike)

	Reporting	Spike	Sample	% l	Recovery	Acceptanc	Relative e Percent
Analyte:	Units	Level	Result	MS	MŠD	Criteria	Difference
	π / \		0.00	-04	104	00.100	
Chromium	mg/L (ppm)	þ	0.69	104	104	80-120	0
Copper	mg/L (ppm)	. D	0.71	95	96	80-120	1
Nickel	mg/L (ppm)	10	0.41	106	104	80-120	2
Zinc	mg/L (ppm)	5	0.07	112	111	80-120	1 1

Laboratory Code: Spike Blank

	Reporting	Spike	% Ro	ecovery	Acceptance	Relative e Percent
Analyte:	Units	Level	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	107	108	80-120	1
Copper	mg/L (ppm)	5	100	102	80-120	2
Nickel	mg/L (ppm)	10	108	109	80-120	1
Zinc	mg/L (ppm)	5	114	114	80-120	0

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

13.4

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

SAMPLE CHAIN OF CUSTODY

11/30 AI

Address 628 Handel WA 98/34 City, State, Zip Scattle WA 98/34 Phone # (206) 382-8379 SITE NO. PROJECT NAME PURCHASE ORDER # PROJECT LOCATION SAMPLERS (signature) PROJECT LOCATION 3200 6th Ave 5. REMARKS SAMPLE DISPOSAL INFORMATION Dispose after 30 days Return Samples Call for Instructions Sample # Sampled Sample Jars Sample # Requested M 51 766 1/28 12:30 H20 / 65466 CR CV N/ ZN	Send Report To: Alaskas	Copper W.	ork		Contac	ct GEA	PACO A.T.	20.75	کسور
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ENVIRONMENTAL CHEMISTS

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282 3012 16th Avenue West Seattle, WA 98119-2029 FAX: (206) 283-5044

January 8, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on December 28, 1995 from your Metro Self Monitor, PO M51766 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson Chemist

keh

Enclosures

FAX: 382-7335 ACU0108R.DOC

ENVIRONMENTAL CHEMISTS

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282 3012 16th Avenue West Seattle, WA 98119-2029 FAX: (206) 283-5044

January 8, 1996

INVOICE # 96ACU0108-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO M51766: Results of testing requested by Gerry Thompson, Project Manager for material submitted on December 28, 1995.

1 process water sample analyzed for Chromium,	
Copper, Nickel, and Zinc @ \$65 per sample	\$ 65.00
Amount Due	\$ 65.00